


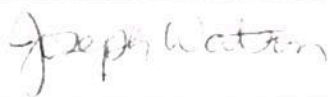


**RCRA Compliance Branch
INSPECTION REPORT**

Inspection Date(s):	07/23/2019 – 07/25/2019		Inspection Announced: No
Facility or Site Name:	Troy Chemical Corporation		
Facility/Site Physical Location:	One Avenue L		
(city, state, zip code)	Newark, NJ 07105		
Mailing address (if different from above):	One Avenue L		
(city, state, zip code)	Newark, NJ 07105		
Facility/Site Contact:	Bill Reilley	Environmental Manager	
	reilleyw@troycorp.com		
	973-508-4628		
RCRA ID Number:	NJD002144517 *		
Facility/Site Personnel Participating in Inspection:			
Alexander Gerardo	Vice President of Government Affairs	gerardoa@troycorp.com / 973-477-0559	
Sam Eskander	General Manager	eskanders@troycorp.com / 973-589-0490	
Donn Hirschmann	Environmental Health and Safety Group Director	hirschmannd@troycorp.com / 973-589-2500	
Jim Manzella	Process Safety Manager	manzellaj@troycorp.com / 973-589-2500	
Bill Reilley	Environmental Manager	reilleyw@troycorp.com / 973-508-4628	
Rob Zedeck	Plant Manager	zedeckr@troycorp.com / 973-589-2500	
Inspector(s):			
Michael Bellot (EPA)		10/17/2019	
Kimberly Chavez (EPA)		10/16/2019	
Cassidy Owen (EPA Contractor)		10/1/2019	
Joseph Watson (EPA Contractor)		9/24/2019	

Enclosure I
RCRA Compliance Branch
INSPECTION REPORT

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Rob Zedeck	Plant Manager	zedeckr@troycorp.com / 973-589-2500	
Inspector(s):			
Michael Bellot (EPA)	{Signature}	{date}	
Kimberly Chavez (EPA)	{Signature}	{date}	
Cassidy Owen (EPA Contractor)	{Signature}	{date}	
Joseph Watson (EPA Contractor)	{Signature}	{date}	

SECTION I – INTRODUCTION

Purpose of the Inspection Objective

At the request of EPA Region 2, EPA Headquarters supported by Eastern Research Group, Inc. (ERG) conducted a Resource Conservation and Recovery Act (RCRA) compliance evaluation inspection (CEI) at Troy Chemical Corporation (Troy), located in Newark, New Jersey, on July 23-25, 2019. The CEI was conducted under the authority of Section 3007(a) of RCRA, as amended. During the CEI, information and data were collected to determine compliance with the applicable regulatory and statutory requirements. The inspection was a routine, unannounced, RCRA compliance inspection that covered all RCRA regulations. The inspection team focused on conducting a standard RCRA Large Quantity Generator (LQG) inspection and assess air emission regulations under Subparts BB and CC. Inspector Watson is the primary author of the inspection report.

Opening Conference

EPA HQ RCRA inspector Kimberly Chavez arrived at the Troy Chemical Corporation at 9:30 am on July 23, 2019 for an unannounced inspection. Two EPA contract inspectors, Joseph Watson and Cassidy Owen, accompanied Ms. Chavez at the time of arrival. We met with Bill Reilley, Environmental Manager, at the opening conference of the inspection. Ms. Chavez and Mr. Watson presented credentials to Mr. Reilley and informed him that this was a routine, unannounced EPA RCRA CEI that covered all RCRA regulations. In addition, Ms. Chavez stated that the inspection would focus on RCRA air emission regulations Subparts BB and CC. Mr. Watson stated that ERG was supporting the inspection by collecting data relevant to RCRA air emissions regulations and core RCRA regulations. The objective of the data collection was to evaluate compliance with RCRA LQG and Subparts BB and CC requirements. Mr. Watson stated data collection activities would include EPA Method 21 comparative monitoring of equipment potentially applicable to Leak Detection and Repair (LDAR) program requirements and hazardous waste containers. Mr. Watson also stated that ERG may conduct sampling if necessary and that split samples would be provided. Jim Manzella provided a review of safety procedures for the facility.

Another EPA HQ RCRA inspector, Michael Bellot, arrived after the lunch break and presented credentials. The inspection report and attachments present the results of the CEI.

Prior to the Facility Tour, EPA requested the following documents for the compliance record review segment of the inspection:

- a. A facility diagram showing all buildings and hazardous material/waste accumulation/storage areas;
- b. A process flow diagram for recently manufactured compounds;
- c. Copy of weekly 90-day storage area inspection records for calendar years 2018 to time of the inspection;
- d. Copy of the in effect Hazardous Waste Contingency Plan including records showing plan distribution;
- e. Hazardous waste training plan and hazardous waste training records for calendar years 2018 to time of inspection;
- f. Hazardous waste manifest and land disposal restriction (LDR) notifications for calendar years 2018 to time of the inspection;
- g. Bills of Ladings or non-hazardous waste shipping documents for calendar years 2018 to time of inspection;
- h. Copy of the latest Biennial Report;
- i. Copy of waste profiles (written based on generator knowledge for a specific manufacturing formulation);
- j. DOT training records for manifest signers (i.e., Reilley);
- k. Copy of the current Clean Water Act Industrial User Permit and associated permit application; and
- l. Copy of the current Clean Air Act Permit and application.

Facility/Site Description

Troy manufactures chemicals using batch operations. Troy manufactures defoamers, dispersions, anti-fungal agents and bactericides for the paint and coating industry. In the manufacturing process, Troy charges a set recipe of chemicals into a reactor. Some of the formulations result in a chemical reaction while the remaining formulations result in a blending operation. The primary raw materials include acetic acid, amines, catalysts, alcohols, and paraformaldehyde, and biocides.

The site consists of eleven buildings, four containing manufacturing processes, on approximately four acres used for manufacturing, QA lab, warehousing and office space. A facility site diagram is provided in Attachment 01. Troy recently shut down the R&D lab and moved those activities to another facility. The main product manufactured on site is Polyphase. Hazardous waste generated on site is from bad batches, spill clean-up, old/expired raw materials or finished products, waste chemicals from analysis in the QA labs and waste from remediation conducted on site. The site also contains the Pierson's Creek Superfund site.

The facility employs 50 union personnel and 30 nonunion personnel. Half of the plant runs 24/7 and half of the plant runs on demand five days per week.

SECTION II – OBSERVATIONS

On the morning of July 23, 2019, ERG's team consisting of Inspector Watson and Inspector Owen calibrated the Toxic Vapor Analyzer (TVA) 2020. ERG calibrated the TVA 2020 using zero air along with methane gas at 500 and 10,000 parts per million (ppm). The team conducted a bump test of the TVA 2020 and determined that the equipment was working properly, readings were within 10 percent of the span gases. Inspector Chavez and Inspector Bellot used the FLIR camera. The inspection team conducted Method 21 monitoring at the facility using a TVA 2020 (flame ionization detector only). The inspection team also scanned for fugitive emissions from equipment using the FLIR GF320 infrared camera by FLIR Systems. Method 21 monitoring was conducted by Inspector Watson with Inspector Owen taking notes. Hazardous waste totes and drums were monitored when accessible.

The inspection team began the facility walkthrough at 15:10 led by Mr. Zedeck. All photographs taken during the walkthrough are provided in Attachment 02. The photograph numbers in this report are based on the photograph number in Attachment 02. The inspection team brought with them the FLIR camera and the TVA 2020 Model A24B4B1. The inspection team was walking towards Building 40 when it observed a 275-gallon tote labeled "material from filter." EPA monitored the content of the tote with the TVA 2020 and observed a reading of 1,850 ppm after removing the cap on the tote. The inspection team requested additional information concerning the contents and status of the tote. The inspection team also noted a tote labeled "Rejected Batch FX40/0759" which identifies the lot number of the production batch. Mr. Zedeck stated that rejected batches are worked back into production runs.

1. {View of a tote labeled "Rejected Batch FX40/0759." The EPA Inspection Team requested follow-up information from the facility as to the hazards associated with this batch.}



{Photograph 2}

The inspection team conducted a walkthrough of Building 40. Building 40 contains the Pilot Plant and two batch reactors. The inspection team observed a filter in an open, unlabeled 5-gallon bucket in the Pilot Plant area. Mr. Zedeck stated the filter was from the pilot plant. It was unclear if this was considered a hazardous waste. The inspection team requested a waste profile for the filter waste stream.

2. {View of a spent filter in a bucket located in Building 40. The EPA Inspection Team requested a hazardous waste profile for this material.}



{Photograph 4}

The inspection team conducted a walkthrough of the 90-day storage area. The following issues were identified:

- a) One pallet of 5-gallon buckets with the following areas of concern identified:
 1. Two 5-gallon buckets of hazardous waste dated 12/28/2018. The writing on the labels was faded and unreadable. The contents and the hazards of the material in the containers were not identified on the label.
 2. Seven of the 5-gallon buckets were unlabeled.
 3. Three 5-gallon buckets labeled "PF waste."
 4. Two 5-gallon buckets were labeled "WH1501CT Oleic Acid"
 5. One 5-gallon bucket was labeled "Tris Amino Waste"
- b) One wet and dented fiber drum labeled "Aminoacetic Acid."
- c) Four 55-gallon drums, one tote, and one overpack drum labeled Mergal 758 that were not dated.
- d) One unlabeled 5-gallon container.
- e) Three 55-gallon drums dated 12/19/2018 were labeled "On Hold Pending Analysis"
- f) Two 55-gallon drums only dated 12/2018.

- g) Two 55-gallon drums", one dated 8/16/2016 and one dated 10/25/2016, labeled "Troy Newark QC Sample.

The weekly inspection logs were reviewed but none of the issues identified during the walkthrough were identified on the checklist.

3. {View of hazardous waste buckets in the 90-day storage area dated "12/28/18." Based on the date, the buckets had been in the 90-day storage area for 207 days.}



{Photograph 5}

4. {View of a fiber drum in the 90-day storage area with a large dent. The drum was labeled “Aminoacetic Acid.”}



{Photograph 6}

5. {View of the 90-day storage area. The hazardous waste buckets and fiber drum from Photograph 5 and Photograph 6 are shown.}



{Photograph 7}

Inspector Watson conducted air emissions monitoring on Day 2. Inspector Watson calibrated the TVA 2020 Model A24B4B1 before arriving at the facility. The equipment calibration notes

are in the field notes of Inspector Watson. The TVA was calibrated, and bump checked in the same way as on the first day.

The inspection team arrived on site at 8:10 am. The inspection team met in the conference room and was provided process flow diagrams claimed by Troy as CBI. Mr. Zedeck provided process descriptions for all production units at the facility. The inspection team began the walkthrough of the facility at 10:30 am.

EPA Method 21 monitoring was conducted by Inspector Watson with Inspector Owen taking notes. Hazardous waste totes and drums were monitored when accessible. In Building 71, ERG conducted EPA Method 21 monitoring on the following process equipment: T7128, filter, filter roll-off container, T7149, and T7152. The only reading above background concentration was at the vent line for the rupture disc of Tank 7152 (Building 71), which measured 100 ppm on the connector at the top of the tank where the tag was located.

The inspection team conducted a walkthrough of the storage area on the south side of Building 71. The inspection team made the following observations:

- a) A 55-gallon drum with significant corrosion with a large portion of the drum open. The drum was half-full of brown-yellow liquid. The drum was labeled "Caustic Soda."
- b) A corroded 55-gallon drum with an open bung hole in the lid. The drum was labeled "Atlas G-5000."
- c) A corroded 55-gallon drum labeled "Sodium Hydroxide, Solid" resting on top of a pallet placed on other drums.

6. {View of a 55-gallon drum with significant corrosion on the south side of Building 71. A large portion of the drum was open, and the drum was half-full of brown-yellow liquid. The drum was labeled "Caustic Soda."}



{Photograph 8}

7. {Alternate view of a 55-gallon drum with significant corrosion on the south side of Building 71. A large portion of the drum was open, and the drum was half-full of brown-yellow liquid. The drum was labeled "Caustic Soda."}



{Photograph 10}

8. {View of a corroded 55-gallon drum with an open bung hole in the lid on the south side of Building 71. The drum was labeled “Atlas G-5000.”}



{Photograph 13}

9. {View of a corroded 55-gallon drum on the south side of Building 71. The drum was labeled “Sodium Hydroxide, Solid” and was on top of a pallet placed on other drums.}



{Photograph 15}

The inspection team conducted a walkthrough of the QA Cage area. The inspection team made the following observations:

- a) Two 55-gallon yellow drums with a label that identified the drums as containing “Fungitrol 404DS Fungicide;” however, another label on the drum indicated that its contents were unknown.
- b) At least six 55-gallon drums containing flammable liquids with heavy corrosion and bulging on top of the drums.
- c) Four 55-gallon drums with duct-tape covering the lids. The label identified the contents of the drums as “Zinc Pyrithione.”
- d) Two fiber drums with significant staining observed on the outside of the drums.

10. {View of two 55-gallon drums inside the QA Cage labeled “Unknown.”}



{Photograph 16}

11. {View of the label for one of the yellow 55-gallon drums from Photograph 16. This label identifies the drum as containing “Fungitrol 404DS Fungicide;” however, another label on the drum indicated that its contents were unknown.}



{Photograph 17}

12. {View of a flammable liquid with heavy corrosion and bulging on top of the drum inside the QA Cage. Note that there was a pallet with additional 55-gallon drums stored on top of this drum.}



{Photograph 18}

13. {View of four 55-gallon drums inside the QA Cage containing flammable liquids with heavy corrosion and bulging on top of the drums.}



{Photograph 19}

14. {View of four 55-gallon drums inside the QA Cage with duct-tape covering the lids. The label identified the contents of the drums as “Zinc Pyrithione.”}



{Photograph 20}

15. {View of two fiber drums stored outside in the QA Cage. Significant staining was observed on the outside of the drums.}



{Photograph 21}

The inspection team conducted a walkthrough of Building 61. Building 61 manufactures products containing MEA and paraformaldehyde. The inspection team made the following observations:

- a) Two 55-gallon drums without proper hazardous waste labeling. One drum had a flammable liquid diamond, labeled “waste”, and also labeled with a product name “Mergal 174”. The second drum was labeled “N-44” and “waste.” The second drum was open and had a funnel inside of the lid. According to Mr. Zedeck, both drums contained nonhazardous waste and would be labeled as such.
- b) An unlabeled, open 5-gallon container next to the two drums above contained an unknown liquid. A nearby 5-gallon bucket was labeled “Dirty PF.”
- c) Two open, unlabeled 5-gallon buckets containing an unknown liquid. Mr. Zedeck believed the material was Mergal 174 but that would need to be confirmed.
- d) Two open, unlabeled 5-gallon buckets containing an unknown liquid inside Building 61. Mr. Zedeck believes the material was collected from R-6105.

The inspection team observed 55-gallon drums stored outside and uncovered in an area behind Building 61 that slopes toward a neighboring property. There were 52 drums labeled” Purge & Decontamination Water” from 12/2018, “Soil Cutting” from 2/2019, “On Hold Pending Analysis.” Mr. Zedeck stated that these drums contained drill cuttings, purge water, and other materials from remediation activities at the Superfund site at the Facility.

16. {View of two 55-gallon drums with unclear labels in Building 61. The drum on the left is labeled as a flammable liquid. It is both labeled with a product name (i.e., Mergal 174) and “waste”. The drum on the right is also labeled “N-44” and “waste.” The drum on the right was open and had a funnel inside of the lid.}



{Photograph 23}

17. {View of an unlabeled, open 5-gallon container in Building 61 containing an unknown liquid. A nearby 5-gallon bucket was labeled “Dirty PF.”}



{Photograph 24}

18. {View of a 55-gallon drum (left) inside Building 61 containing a flammable liquid. Note that the drum was not labeled with the name of the chemical contained.}



{Photograph 25}

19. {View of two open, unlabeled buckets containing an unknown liquid inside Building 61.}



{Photograph 26}

20. {View of 55-gallon drums stored outside and uncovered in an area behind Building 61 that slopes toward a neighboring property. There were 52 drums labeled “On Hold Pending Analysis.”}



Photograph 27}

21. {Alternate view of 55-gallon drums stored outside and uncovered in an area behind Building 61 that slopes toward a neighboring property. There were 52 drums labeled “On Hold Pending Analysis.”}



{Photograph 28}

The inspection team conducted a walkthrough of Building 91 and Building 99. The inspection team made the following observations:

- a) An inactive lab in the building with unused chemicals stored under the fume hood for two to three years.
- b) Two 55-gallon drums outside of Building 99 containing remediation wastes with labels stating, "Pending Analysis."
- c) Two additional unlabeled 55-gallon drums of remediation wastes along the east perimeter fence of the facility.

22. {View of various chemicals in a cabinet inside of the small lab area. Lab personnel stated that these chemicals had not been used in two to three years.}



{Photograph 29}

23. {View of two 55-gallon drums outside of Building 99 with labels stating, “Pending Analysis.”}



{Photograph 30}

24. {View of two unlabeled 55-gallon drums along the east perimeter fence of the facility.}



{Photograph 31}

Two roll-off containers were found storing contaminated soil adjacent to Building 65. This waste was generated from remediation conducted on site. Each roll-off container had hazardous waste labels on them but were weathered so the writing on the labels was unreadable. These are same roll-off containers that were identified in the 2014 inspection report and have been on site more than five years, exceeding the 90-day storage limit.

25. {View of the two roll-off containers containing contaminated soil from the Superfund site.}



{Photograph 32}

26. {Close-up view of the hazardous waste label on the right roll-off container in Photograph 33. The information on the label was faded and unreadable.}



{Photograph 34}

The inspection team conducted a walkthrough of the former R&D Lab/Building 99. The R&D Lab was moved to another facility. The inspection team observed two containers of waste from the cleanup of the R&D Lab. The two containers were labeled “Waste Drum”. The containers were dated 6/12/2019 and no information on the contents or the hazards of the wastes in the containers was available.

27. {View of two containers labeled “Waste Drum” inside the old R&D Lab/Building 99. The containers were dated 6/12/2019 and no information on the contents or the hazards of the wastes in the containers was available.}



{Photograph 35}

The inspection team conducted a walkthrough of the QA Lab. Hazardous waste was found in the QA lab where raw materials and finished products are analyzed. HPLC machines located in the lab generate acetonitrile/methanol waste that drains directly into 4-liter satellite accumulation containers (SAC). In addition, there was one 4-liter SAC of waste toluene and another 4-liter SAC of waste toluene and methanol in a fume hood.

The inspection team observed a satellite accumulation area for lab waste located in the warehouse adjacent to the QA lab. There were two 55-gallon drums labeled as containing hazardous waste, but the contents of the drums and the hazards of the wastes were not identified on the label. One of the drums was full but was not dated.

28. {View of a small hazardous waste container inside the QA lab. The label only states “Organic HPLC Waste” and does not list the specific hazards.}



{Photograph 36}

29. {View of additional small hazardous waste containers inside the QA lab. The labels do not list the specific hazards.}



{Photograph 37}

30. {View of the satellite accumulation area for lab waste located in the warehouse adjacent to the QA lab. Note that there were two 55-gallon drums labeled as containing hazardous waste, but the contents of the drums and the hazards of the wastes were not identified on the label. Lab personnel stated the drums contain the same type of lab hazardous waste.}



{Photograph 38}

The inspection team conducted a walkthrough of the Maintenance Building. The inspectors observed a box of used fluorescent lamps that was not dated. The inspectors also found a metal-halide lamp in the trash and removed the lamp to put in the used lamp box.

31. {View of the universal waste storage area inside the Maintenance Building. Note that the lamps were not dated.}



{Photograph 39}

32. {View of a used lamp inside the Maintenance Building that was found in a garbage container separate from the universal waste storage area.}



{Photograph 40}

The inspection team conducted a walkthrough of Building 71. Building 71 manufactures Polyphase in a batch reactor which is used as the base formulation for numerous products. The inspection team made the following observations:

- a) A super sack of raw material labeled “Glycine – store in a cool dry place” was open and spilled on the ground near the south side of Building 71.
- b) A pallet of 5-gallon buckets stacked three high near the south side of Building 71 appearing to be waste and had various labels including “Unknown Pending Analysis” and “Selenium Dioxide.” The pallets were falling apart, and the stack of buckets was not very stable.
- c) A drum near the south side of Building 71 was labeled “Waste Chemicals” and dated “1/10.” It was not clear what chemicals were in the drum or the hazards associated with the chemicals.

33. {View of a bag labeled “Glycine – store in a cool dry place” open and spilled on the ground near the south side of Building 71.}



{Photograph 41}

34. {View of a pallet of 5-gallon buckets near the south side of Building 71. The buckets contained various labels including “Unknown Pending Analysis” and “Selenium Dioxide.” Note that the pallet did not appear stable.}



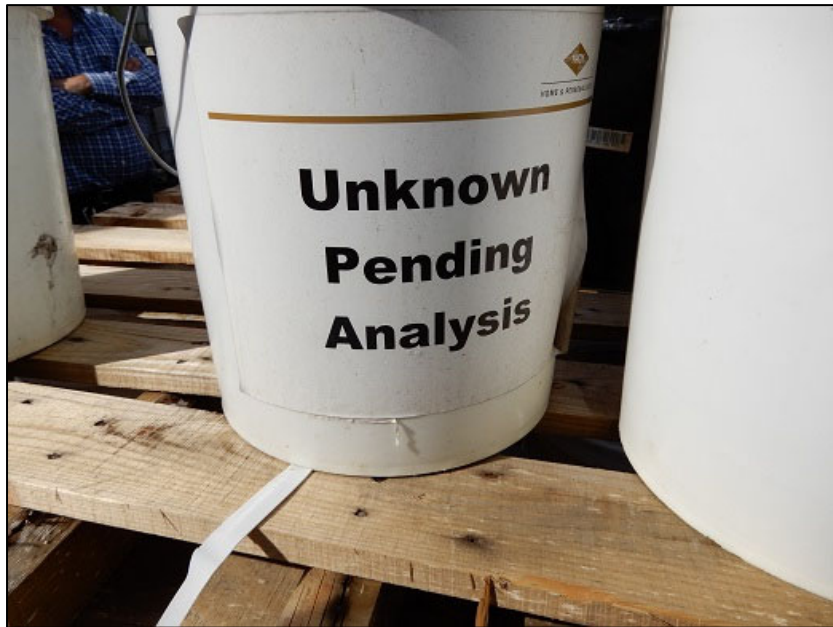
{Photograph 43}

35. {View of one bucket on the pallet from Photograph 43 labeled “Selenium Dioxide.”}



{Photograph 44}

36. {View of another bucket on the pallet from Photograph 43 labeled “Unknown Pending Analysis.”}



{Photograph 45}

37. {View of a drum near the south side of Building 71 labeled “Waste Chemicals” and dated “1/10.” It was not clear what chemicals were or the hazards associated with the chemicals.}



{Photograph 46}

The inspection team reviewed documentation provided by the facility.

Manifest Review: Inspectors Owen and Watson reviewed hazardous waste manifests and associated LDR notifications and certifications issued by the Facility from January 2018 to present. Copies of sample manifests are included in Attachment 03. Copies of sample waste profiles are included in Attachment 04. The types of wastes noted on the above manifests corresponded well with the types of waste observed during the facility tour. Furthermore, the amounts of waste and frequency of shipments recorded on the manifests are indicative of the Facility's notified LQG generator status. The inspection team was also able to find appropriately completed LDR notifications in the manifest folders. In general, the manifest packages (including LDRs) were complete, timely and accurate. Some examples of the waste recorded on the manifests are:

- Waste corrosive liquid (D002);
- Waste flammable liquid (D001);
- Polyvinyl chloride homopolymer (D004); and
- Waste flammable liquids (D001, F003).

The following Facility representative signed the "generator" blocks: Bill Reilley. A copy of the Department of Transportation Training Record was not provided.

Manifest 017955799JJK dated 4/19/2018 and manifest 020073360JJK dated 12/28/2018 listed wastes under UN3265, UN3266, and UN3267 are listed as D002 on some waste streams and New Jersey waste code 72 for what appears to be similar waste streams. Troy stated in their August 14th response that waste streams such as isothiazolinone wastes can be from multiple products that have different pHs. Troy stated they verify the pH of the waste streams and apply the appropriate waste code.

Hazardous Waste Training Records: Bill Reilley who signs hazardous waste manifests has received RCRA hazardous waste training. Troy has a RCRA training program and their employees have received initial and annual refresher RCRA hazardous waste training.

All employees who conduct the inspections of the 90-day storage area have received RCRA hazardous waste training. The available training records for personnel conducting the daily inspections of the 90-day storage area were provided to the Inspection Team. All operators received RCRA annual refresher training on 08/21/2018. Training records are included in Attachment 05.

90-day Storage Area, SAA Inspection Records (as reviewed by Inspector Watson):

Weekly inspection records for the 90-day storage area: The inspection logs were reviewed for January 2018 through present. The records indicate that Troy does conduct weekly inspections

of the 90-day storage area. All inspection logs recorded the initials of the inspector as well as the date of the inspection. The inspection sheets have a place to document the time of the inspection but the personnel inspecting the 90-day storage area has not recorded the time. Weekly inspection logs are included in Attachment 06. The weekly inspection logs do not accurately reflect the conditions of the containers as observed during the inspection. The weekly inspection logs did not indicate any issues with the containers or that the dates on containers in the 90-day area exceed the 90-day storage limit.

August 2011 RCRA Contingency Plan (CP): The Plan in effect at the time of the inspection had been reviewed internally by facility management. The facility layout in the CP did not identify the 90-day storage area and it did not show the proper evacuation routes from that area. The RCRA CP and the updated facility layout provided by Troy on 08/12/2019 are included in Attachment 07.

Receipts of plan distribution (e.g., return receipt requested green cards, or copies of cover letters transmitting the CP) were not included as part of the CP for review. No arrangements with local hospitals could be verified during the inspection. A letter identifying arrangements with a local health care provider was provided after the inspection. The letter to Ironbound Medical Services, LLC dated 08/12/2019 is included in Attachment 08. Additional updated letters identifying arrangements with local service providers are also included in Attachment 08.

2017 Biennial Report: The 2017 Biennial Report was submitted on 2/26/2018 and is provided in Attachment 09. The Biennial Report reflects current waste streams generated at the facility, as observed during the review of hazardous waste manifests

May 2016 Passaic Valley Sewerage Commission Sewer Use Permit 20200049: The permit in effect at the time of the inspection is provided in Attachment 10. The facility has two outfalls. No process wastes are discharged to the sewer.

Outlet #1A – The sample point is located outside Building 71 in the distribution collection sump.

Outlet #1 – The sample point is located in a manhole outside in the front yard next to their sewer monitoring shed.

QA Cage Inventory: Inspector Cassidy and Inspector Watson reviewed the inventory of the QA Cage provided by Troy. The QA Cage inventory is provided in Attachment 11. ERG was only able to find approximately 25% of the SDSs for the materials on the QA Cage inventory. ERG identified that the following chemicals in the QA Cage would be hazardous waste if determined to be wastes and disposed of. Many drums of chemicals in the QA Cage appear to be wastes based on the condition and labeling of many of the containers. The SDSs are provided in Attachment 12.

- Fungitrol 440S – D001

- Fungitrol 940 B – D001
- Mergal 192 – D001
- Mineral Spirit – D001
- Polyphase AF-1 – D001

The inventory of the QA Cage did not have dates the material entered the QA Cage. As a result, the inspection team could not make any determinations concerning speculative accumulation. Based on the observations of corrosion of numerous drums in the QA Cage, the inspection team believes that many of the drums in the QA Cage are corroded and in poor condition with bulging lids, therefore, have been in the QA Cage for more than a year.

Air Pollution Control Preconstruction Permit and Certificate to Operate Revision PCP170004:

The air permit expires 11/15/2020. The air permit states that the permit covers the chemical process including reactor/receiver, fractionators and process/storage tanks used to manufacture specialty chemicals. Methanol is recovered from the process using fractionators (distillation columns). Methanol emissions are controlled with a packed tower and are below the reporting threshold. A copy of the permit is provided in Attachment 13.

SECTION III – AREAS OF CONCERN

Regulatory Concerns

1. 40 CFR 262.11 states, “A person who generates a solid waste, as defined in 40 CFR 261.2, must make an accurate determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations.”

During the inspection, I observed drums and totes in the QA cage labeled as unknown or unknown pending analysis.

- A pallet of 5-gallon buckets stacked three layers high near the south side of Building 71 contained various labels including “Unknown Pending Analysis” and “Selenium Dioxide”.
- Two containers labeled “Waste Drum” inside the old R&D Lab/Building 99 were dated 6/12/2019 and no information on the contents or the hazards of the wastes in the containers was available.
- Two 55-gallon drums outside of Building 99 containing remediation wastes with labels stating, “Pending Analysis.”
- Two additional unlabeled 55-gallon drums of remediation wastes along the east perimeter fence of the facility.

After the inspection, Troy labeled the selenium dioxide wastes as hazardous waste and moved them to the 90-day storage area (See Photograph 6 Attachment 14)

2. 40 CFR 262.17(a)(a)(iv)(A) and (B) states, "*Management of containers*. A container holding hazardous waste must always be closed during accumulation, except when it is necessary to add or remove waste. A container holding hazardous waste must not be opened, handled, or stored in a manner that may rupture the container or cause it to leak."

During the inspection, I observed the following areas of concern:

- One wet and dented fiber drum in the 90-day storage area labeled "Aminoacetic Acid."
 - A 55-gallon drum located south of Building 71 containing hazardous materials completely corroded through with sections of the drum missing.
 - A corroded 55-gallon drum located south of Building 71 with an open bung hole in the lid. The drum was labeled "Atlas G-5000."
 - A corroded 55-gallon drum I located south of Building 71 labeled "Sodium Hydroxide, Solid" resting on top of a pallet placed on other drums.
3. 40 CFR 262.17(a) states, "*Accumulation*. A large quantity generator accumulates hazardous waste on site for no more than 90 days, unless in compliance with the accumulation time limit extension or F006 accumulation conditions for exemption in paragraphs (b) through (e) of this section."

During the inspection, I observed the following areas of concern:

- Two roll-off containers were found storing contaminated soil adjacent to Building 65. This waste was generated from remediation conducted on site and placed in the roll-off containers in 2014. The labeling on the roll-off containers was faded and unreadable.
- There were 52 drums labeled "Purge & Decontamination Water" from 12/2018, "Soil Cutting" from 2/2019, "On Hold Pending Analysis." The 55-gallon drums were stored outside and uncovered in an area behind Building 61 that slopes toward a neighboring property.
- Two 5-gallon buckets of hazardous waste dated 12/28/2018 in the 90-day storage area.
- Three 55-gallon drums dated 12/19/2018 in the 90-day storage area labeled "On Hold Pending Analysis"
- Two 55-gallon drums in the 90-day storage area dated 12/2018.
- Two 55-gallon drums in the 90-day storage area labeled "Troy Newark QC Sample", one dated 8/16/2016 and one dated 10/25/2016.

Troy disposed of hazardous wastes and nonhazardous wastes from the 90-day storage area after the inspection (See Photograph 1 Attachment 14). Troy relabeled the roll-off containers and cleared the area around the roll-offs for better access (See Photograph 7 Attachment 14).

4. 40 CFR 262.15(a)(5)(ii) states, "A generator must mark or label its container with an indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704)."

During the inspection, I observed that none of the SAAs in the Building 1 QA lab had the hazards identified on the SAA hazardous waste containers.

After the inspection, Troy added the hazard to the hazardous waste containers in the SAAs (See Photograph 8 Attachment 14). The hazardous waste labels on the 55-gallon drums in the SAA in the warehouse did not contain any information about the contents of the drum.

5. 40 CFR 262.15(a) states, "A generator may accumulate as much as 55 gallons of non-acute hazardous waste and/or either one quart of liquid acute hazardous waste listed in §261.31 or §261.33(e) of this chapter or 1 kg (2.2 lbs.) of solid acute hazardous waste listed in §261.31 or §261.33(e) of this chapter in containers at or near any point of generation where wastes initially accumulate which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with the requirements of parts 124, 264 through 267, and 270 of this chapter, provided that all of the conditions for exemption in this section are met. A generator may comply with the conditions for exemption in this section instead of complying with the conditions for exemption in §262.16(b) or §262.17(a), except as required in §262.15(a)(7) and (8)."

During the inspection, I observed two 55-gallon drums of hazardous waste stored in a SAA for the Building 1 QA lab in the warehouse. The SAA in the warehouse is not under the control of the QA lab. One of the drums was full and did not have the date the excess amount began accumulating on the full drum.

After the inspection, Troy designated the second drum as non-hazardous materials only (See Photograph 3 Attachment 14)

6. 40 CFR 262.252 (c) lists required equipment for a 90-day storage area, "Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment."

The spill kit associated with the 90-day storage area was located in the adjacent building.

After the inspection, Troy purchased a spill kit and placed it in the 90-day storage area (See Photograph 2 Attachment 14)

7. 40 CFR 262.17(a)(1)(vii) states, "A container holding a hazardous waste that is incompatible with any waste or other materials accumulated or stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device."

During the inspection, I observed throughout the facility instances where drums of D001 wastes were stored in close proximity and sometimes on top of drums of D002 waste and vice versa.

8. 40 CFR 261.1(c)(8) states, "A material is "accumulated speculatively" if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that—during the calendar year (commencing on January 1)—the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period. Materials must be placed in a storage unit with a label indicating the first date that the material began to be accumulated. If placing a label on the storage unit is not practicable, the accumulation period must be documented through an inventory log or other appropriate method. In calculating the percentage of turnover, the 75 percent requirement is to be applied to each material of the same type (e.g., slags from a single smelting process) that is recycled in the same way (i.e., from which the same material is recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under §261.4(c) are not to be included in making the calculation. Materials that are already defined as solid wastes also are not to be included in making the calculation. Materials are no longer in this category once they are removed from accumulation for recycling, however."

The inventory of the QA Cage did not have dates the material entered the QA Cage. As a result, the inspection team could not make any determinations concerning speculative accumulation. Based on the observations of corrosion of numerous drums in the QA Cage, the inspection team believes that many of the drums in the QA Cage are corroded and in poor condition with bulging lids, therefore, have been in the QA Cage for more than a year. In addition, the chemicals are most likely not usable and will most likely be disposed of as wastes.

9. 40 CFR 262.20 and RCRA Online Document 11199 states, "The Generators'/Offeror's Certification. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged,

marked, and labeled/placarded. And are in all respects in proper condition for transport according to applicable informational and national governmental regulations.”

The person signing the hazardous waste manifests, Bill Reilley, has not had the required DOT training in order to meet the requirements of the certification. Facility personnel were unable to provide the records.

10. 40 CFR 262.256(a) states, “The large quantity generator must attempt to make arrangements with the local police department, fire department, other emergency response teams, emergency response contractors, equipment suppliers, and local hospitals, taking into account the types and quantities of hazardous wastes handled at the facility. Arrangements may be made with the Local Emergency Planning Committee, if it is determined to be the appropriate organization with which to make arrangements.”

During the records review, it was identified that arrangements were not made with a local hospital to inform them of the toxic materials used on site that may contaminate an employee during an emergency release.

11. 40 CFR 273.13(d)(1), 40 CFR 273.14(e) and 40 CFR 273.15(c) state, “*Lamps*. A small quantity handler of universal waste must manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows: A small quantity handler of universal waste must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions. Each lamp or a container or package in which such lamps are contained must be labeled or marked clearly with one of the following phrases: “Universal Waste—Lamp(s),” or “Waste Lamp(s),” or “Used Lamp(s)”. A small quantity handler of universal waste who accumulates universal waste must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by: Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received.”

During the inspection, I observed a box of used fluorescent lamps in the Maintenance Building that was not dated. I also observed a metal-halide lamp in the trash and removed the lamp to put in the used lamp box.

After the inspection team identified this issue, Troy placed the accumulation start date on the container (See Photograph 4 Attachment 14).

12. 40 CFR 262.51 states, “A large quantity generator must maintain and operate its facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden

release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.”

During the inspection, I observed the following issues:

- a) Numerous open totes and drums were identified throughout the facility. This may potentially result in large volumes of contaminated wastewater from precipitation to be disposed of.
- b) Numerous open-ended process lines were identified throughout the facility (Building 61, Building 71) that may potentially result in a release/spill.
- c) A bag labeled “Glycine – store in a cool dry place” open and spilled on the ground near the south side of Building 71.
- d) Corroded and bulging 55-gallon drums of chemicals were found throughout the facility as previously described in this report.

General Concerns

- 13. While conducting comparative monitoring using the TVA2020, the following items were identified:
 - a) The vent line for the rupture disc of Tank 7152 (Building 71) measured 100 ppm on the connector at the top of the tank where the tag was located.
 - b) The manway lid on the tank was loose and the escaping nitrogen blanket caused the TVA2020 to flameout.

Closing Conference

Upon concluding the on-site record review, Inspectors Bellot, Chavez, Owen, and Watson conducted an inspection out-brief with Mr. Gerardo, Mr. Eskander, Mr. Hirschmann, Mr. Reilley, and Mr. Zedek. The following categories of concerns/issues were reviewed with the Facility representatives:

- 1. Failure to properly manage the 90-day storage area to include improper container labeling, segregating incompatible wastes, properly documenting issues identified during weekly inspections, inadequate safety equipment, and personnel training;
- 2. Failure to properly manage areas storing hazardous waste from remediation activities as 90-day storage areas that should be inspected weekly with proper access around all containers and drums;
- 3. Failure to properly label drums and 5-gallon buckets of waste in Building 61. Four of the 5-gallon buckets containing waste material were open and unlabeled;
- 4. Failure to properly label SAA containers in the QA Lab;

5. Failure to properly manage the SAA located in the warehouse for the QA lab and failure to properly label the 55-gallon drums;
6. Failure to provide DOT training records for personnel signing hazardous waste manifests;
7. Failure to provide documentation of training for Troy personnel;
8. Speculative accumulation may be occurring due to the large number of undated containers and corroded/bulging containers;
9. Manifests, including manifest 017955799JJK dated 4/19/2018 and manifest 020073360JJK dated 12/28/2018 listed wastes under UN3265, UN3266, and UN3267 are listed as D002 on some waste streams and New Jersey waste code 72 for what appears to be similar waste streams;
10. Failure to make hazardous waste determinations on waste streams. 55-gallon drums and 5-gallon buckets were found in or around Building 99, the QA Cage, Building 61, and Building 71 with labels stating, "Pending Analysis", "Waste", or no label at all;
11. Failure to properly manage universal waste lamps in the maintenance building; a box of used fluorescent lamps that was not dated, and a metal-halide lamp was found in the regular trash;
12. The vent line for the rupture disc of Tank 7152 (Building 71) measured 100 ppm on the connector at the top of the tank where the tag was located. The manway lid on the tank was loose and the escaping nitrogen blanket caused the TVA2020 to flameout;
13. Numerous open totes and drums were identified throughout the facility. This may potentially result in large volumes of waste to be disposed of;
14. Numerous open-ended process lines were identified throughout the facility (Building 61, Building 71) that may potentially result in a release/spill.;
15. The RCRA Contingency Plan did not identify the 90-day storage area on the map and it did not document arrangements with local hospitals to provide support during an emergency; and
16. A bag labeled "Glycine – store in a cool dry place" open and spilled on the ground near the south side of Building 71;

The following documents were received during the inspection and included as attachments to this report. Process flow diagrams are being managed as RCRA CBI and not included as an attachment to this report.

List of Attachments: These attachments are referenced throughout this report:

ATTACHMENT 1: Facility Floor Plan/Building Layout;
ATTACHMENT 2: Digital Images Taken on July 23 and July 24th, 2019 Walkthrough;
ATTACHMENT 3: Copies of Sample Manifests;
ATTACHMENT 4: Copies of Waste Profiles;
ATTACHMENT 5: Copies of RCRA Training Records;
ATTACHMENT 6: Copies of Troy's Weekly Inspection Logs;
ATTACHMENT 7: Copy of Troy's RCRA Contingency Plan;
ATTACHMENT 8: Letters of Arrangement with Local Service Providers;
ATTACHMENT 9: Copy of Biennial Report;
ATTACHMENT 10: Copy of Passaic Valley Sewerage Commission Sewer Use Permit #20200049;
ATTACHMENT 11: Inventory of Troy's QA Cage;
ATTACHMENT 12: Copy of SDSs for Materials that would be a Hazardous Waste if Disposed of;
ATTACHMENT 13: Copy of Air Pollution Control Preconstruction Permit and Certificate to Operate Revision PCP170004; and
ATTACHMENT 14: Post-Inspection Photograph Updates from Troy.

Inspectors Bellot and Chavez then explained the broad range of post-inspection responses and requested that Facility representatives take immediate action to address the issues pointed out during the inspection. He also asked Troy personnel to keep the lines of communication open with EPA, and to update EPA with any implemented improvements to address the concerns listed above.

Inspectors Bellot, Chavez, Cassidy, and Watson concluded the inspection and left the facility on July 25, 2019.